International Living With a Star

http://ilws.gsfc.nasa.gov



Launch of the International Living With a Star Initiative

A new collaborative space initiative called International Living with a Star (ILWS) has been launched by the world's major space agencies.

ILWS will stimulate, strengthen, and coordinate space research in order to understand the physical processes that govern variability in the connected Sun-Earth system. The scientific goal of ILWS is to increase our understanding of how solar variability affects the environment on Earth and other planets, both in the short and long term. Of particular interest of the ILWS are those aspects of the Sun-Earth system that have consequences for life and society. Over the next decade ILWS will assemble the largest fleet of spacecraft ever focused on a single scientific objective.

The Sun is a variable star. Its brightness changes constantly, especially in invisible ultraviolet and x-ray wavelengths. This star generates stormy gusts in the solar wind that continually barrage the Earth's magnetic field. Rapid variations of solar wind can disrupt communications and navigation, damage satellites, interrupt power distribution on Earth, and affect astronauts and even aircraft passengers. Slower changes contribute to climate change as well. Therefore they need to be studied in much more detail.

Following an original proposal by the Inter Agency Consultative Group for space science (IACG) ILWS is designed to follow the successful cooperation in the International Solar Terrestrial Physics (ISTP) program, which involved cooperation of space efforts from Europe, Japan, Soviet Union/Russia and the United States. A steering committee has been established to supervise ILWS. The committee is made of five space agencies: the National Aeronautics and Space Administration (NASA), the European Space Agency (ESA), Japan's Institute for Space and Astronautical Science (ISAS), the Russian Aviation and Space Agency (RASA) and the Canadian Space Agency (CSA). The first meeting of the steering committee was held in Paris in January 2003. It is chaired by H. Opgenoorth (ESA), and the members include D. Sibeck (NASA, Executive Secretary), M. Guhathakurta (NASA), R. Marsden (ESA), T. Kosugi (ISAS), L. Zelenyi (RSA), and William Liu (CSA, vice-chair).

Page 1(2)



STEE	RING	COM	MIT	TEE
ESA	NASA	CSA	ISAS	RASA
H.J. Opgenoorth Chair	D. Sibeck Executive Secretory	W. Liu Vice Chair	T. Kosugi	L. Zelenyi
R. Marsden	M. Guhathakurta		1/1/	

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The objective of ILWS is to study the connected Sun-Earth system as an integrated entity and the effects that influence life and society; to stimulate collaboration among potential partners in solar-terrestrial space missions; to coordinate international research in solar-terrestrial studies, including all relevant data sources as well as theory and modeling; and to provide open access to all data and results.

Specific projects will be coordinated through the ILWS Working Group. Space agencies that commit to contribute substantially to the program over the next decade will be eligible to appoint Working Group delegates Possible contributions include missions, payloads or subsystems; launch or tracking services; rockets, balloons, or other new data sources; and major data systems. At a `kick-off' meeting between the space agencies involved in ILWS, held in September, 2002 in Washington DC, the group looked at a large array of complementary ionospheric, magnetospheric, solar, and heliospheric exploration and monitoring programs planned for the next decade. A few of the major missions under evaluation are Solar-B (ISAS), Solar Orbiter (ESA), Coronas-Photon and Resonance from RASA, Enhanced Polar Outflow Probe from CSA and NASA's Living With a Star and Solar Terrestrial Probe missions.

The first full Working Group meeting, to which over 20 space agencies have announced their participation, is scheduled to take place in Nice, France on April 14 and 15, 2003.

More information about ILWS can be found at: http://ilws.gsfc.nasa.gov



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